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Content Management System for Recruiting Company

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| <p>The main goal of this thesis is to develop a well structured yet simple website for a company named Kits Manpower. For this purpose a CMS tool Wordpress is used. It is a free open source tool based on PHP and MYSQL. It has a admin panel called dashboard to manage the site. Also admin can manage the website easily. The logo for the company was developed using Adobe Photoshop while all other designing and developing is done using Wordpress.</p> <p>The website consists of different pages giving information about the company as well as the surrounding. The website consists of social application as well. With the help of this social application you can get more information about the company. Lots of Plug-in are used to develop this website. Some of them are contact form, Apply with LinkedIn button and so on. All this plug-ins are free and can be obtained/downloaded from Wordpress plug-in environment.</p> | |
| Keywords | Content management system, open source, Wordpress |

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Abbreviations

| | |
|---------|---------------------------------------|
| CMS | Content Management System |
| CMA | Content Management Application |
| CDA | Content Delivery Application |
| HTML | Hypertext Markup Language |
| PHP | Hypertext Preprocessor |
| SQL | Structured Query Language |
| WSDM | Web Services Distributed Management |
| SEO | Search Engine Optimization |
| WYSIWYG | What You See Is What You Get |
| RDBMS | Relational Database Management System |
| HTTP | Hypertext Transfer Protocol |
| API | Application Programming Interface |
| FTP | File Transfer Protocol |
| SEF | Search Engine Friendly |
| CSS | Cascading Style Sheet |

1 Introduction

Nowadays everything is done online. People all over the world are used to online applications and use the internet to get the information about company and its profile in the web.

Content management system (CMS) is a web application which is used to create, edit and organize website and its content without any programming or less amount of programming. CMS content consist of different types of files like HTML, XML, and Media files e.tc. With the help of CMS system, these files can be edited and organized on a file system and published to the web through web server. Content management system helps people to publish documents and media files with less technical expertise and in more consistent and automated fashion. One person or group of people can work together to publish the content.

Wordpress is one of the popular CMS tool used nowadays. It is free and based on PHP and MYSQL. Wordpress is constantly evolving and developing its content.

The aim of this project is to provide information about the job recruiting company and advertise the company profile on the web. Here on this website detailed information about the company as well as all information to apply for a job is given. Wordpress is one of the powerful content management tools which is used to publish different things online. Through this website people across the world can see and check the job availability and apply for the vacant position and contact the company through mails. On this website plug-ins and widgets are used to simplify the look and content. This website is built on the responsive theme so the content can be seen on any device regardless of its size like in mobile phones, tablets or big screens.

2 Background

Content management system is a system which is used to develop and edit and manage the content of a website. [1] It is software or group of suite of applications and tools that are used to create, edit, review and publish electronic text. That is why it is also called web management system. [2] It is used to publish edit and modify and it is also used for maintenance using a central interface. One can do all the publishing modifying and maintaining of the website using a central interface which can be an application or software. Content Management was developed in the late 1990s. [3] It is used to run different online systems like websites, blogs, news and shopping. Many companies, corporations as well as marketing companies use CMS. It is basically used to avoid hand coding which is tedious but one can use a few lines of coding in some places according to the need of the system and requirements. [3]

The main function or use of CMS is to develop and present information on websites. It can be simple systems showing some simple features or some complex and powerful functions depending upon the need of the website and requirement of the system one is developing. [3]

Content that is shown on the website or blogs can be of different forms. The content can be presented in simple texts such as documents, multimedia files (video or audio) or any other file type that follows a content lifecycle requiring management. Content often consists of the following basic roles and responsibilities:

Creator: a person who is responsible for creating and editing content.

Editor: a person who is responsible for modifying the style of delivery, including translation and localization.

Publisher: responsible for releasing the content for use.

Administrator: responsible for managing access permissions to folders and files, usually accomplished by assigning access rights to user groups or roles.

Consumer, viewer, or guest: the person who reads or otherwise takes in content after it is published or shared [4]

The World Wide Web content consists of HTML, XML, and other documents and media files (audio and video). These contents can be easily edited and published manually and organized on a file system exposed to the web through a web server without much technical expertise and tedious work. It stores the actual content of the website or blogs which includes simple text or images or other media files in a database. The sys-

tem then shows those store items in the appropriate pages based on the rules. It is developed basically to help people to publish documents and media files with less technical intervention and in a more consistent and automated fashion. CMS is used to develop anything from a simple document management system, to a media asset management system, to a portal, to a blog system. [4]

CMS helps to speed up the content updating process and also a non technical user to understand it. Because it is easy to understand and use, it helps user to keep the content up to date and in time without much stress and work load. It is used for different types of applications to manage its content. Some of the applications are given below

- Blogs: contains organized and categorized content in simple format usually have comments and discussion on a certain topic;
- News: using online newspaper instead of traditional hard/physical copy;
- Wikis: interlinked documents which are open for public editing.
- Online books: which helps authors and archivists to publish their content organized as the traditional hard copy book .It also helps the reader to read the books as an e-book.

The feature of CMS varies widely from one system to another system. It might consist of simpler systems with a handful of features or can have complex and powerful features like in enterprise systems, where it is allow to share and contribute stored data to a large group of people. It also gives control access to data based on the user role, i.e. it allows users or user groups to view, edit, publish etc. It also helps to store and retrieve the data and simplify the report writing. It can be used to define almost any data formats from a document, text, articles to movies, images etc. [4]

CMS consists of two elements

- Content management application (CMA)
- Content delivery application (CDA)

The CMA element allows the content manager or author to manage create, modify or remove the content from a website without being expert as a webmaster. The CDA element is used to compile that information to update the website. [1]

The features of a CMS system vary from system to system but most consist of Web-based publishing, format management, revision control, and indexing, search, and re-

trieval. Web based publishing is a feature in which users are allowed to use a template or a set of templates (allowed by organization), as well as wizards and other tools to develop or modify the content. The format management feature is used to allow documents which includes legacy electronic documents and scanned paper documents and formatted into HTML or Portable Document Format (PDF) for the Web site. The revision control feature helps to control to update the contents to a newer version or restored back to previous version. It also tracks changes made by individual to the file. A CMS system indexes all data within an organization, Indexing, search, and retrieval feature allows users to search for data using keywords which is retrieved by CMS . [1]

2.1 History

There are many claims on what or who wrote the first CMS which includes Roxen (1994) Blitzen (mid 90's), Ingeniux (1999) and Vignette. In those designs the main feature was a very structured development environment and one had use tags and templates as there was no WYSIWYG (What you say is what you get) editor. Clients must have knowledge about the technology for e.g. if one does not know HTML then they were not able to edit their site. Their websites were written by web design agencies and every agency had their own web designer with HTML skills. . [15]

Then, the next stage of the development of CMS which was led by software houses focused on functionality. Some of the key features which are developed during this slow development are WYSISWYG text editing, search, improved HTML and the addition of features like survey tools and podcasts. RedoDot and others, such as DotNetNuke and Mambo (later changed into Joomla and DotNetNuke) led the development of specialists during early stage. These systems are still used today. The systems became feature-rich and then agencies needed people with technical skills as well as designers so that they could satisfy the need of the each client and adapt each client site into CMS framework. [15]

CMS Timeline

Some of the core concepts that define the CMS and its development till now are listed below

- **Late 1997** - TYPO3's development was started from scratch by Kasper Skårhøj in 1997. August 1999 it went open source.
- **Sep 1999** - IntraNet Solutions launched Xpedio, the industry's first end-to-end Web content management system, in September 1999. Xpedio is based on

core IntraNet Solutions technology, combined with technology obtained from the acquisition of Info Access in September.

- **2000-** SilverStripe software is developed by SilverStripe Limited, a website development company founded in 2000. On 3 February 2007, SilverStripe 2.0.0 was released publicly as free and open source software.
- **October 2001** – Movable type is a weblog publishing system developed by the company Six Apart Version 1.0 was publicly released .
- **2001** – Plone, a free and open source content management system that is built on top of the Zope application server.
- **January 2001** – Initial Release of Drupal₁. Originally written by Dries Buytaert as a message board, Drupal became an open source project in 2001.
- **May 2003** – WordPress 0.71-gold was released, available for download in the official WordPress Release Archive page. First official version of WordPress was Released on January 2004.
- **2003** – TextPattern is an open source content management system originally developed by Dean Allen, written in PHP using a MySQL database.
- **July 2004** – It is made Simple was built using PHP that provides website developers with a simple, easy to use utility to allow building semi-static website.
- **September 2005** – Joomla 1.0 was released.
- **2005** – dotCMS is a CMS for building/managing websites, content and content driven web application.
- **January 2007** – Frog CMS is an open source content management system originally developed by the company Philippe Archambault, and it is a port of the Ruby on Rails CMS known as Radiant.
- **April 2011** –Melodu 1.0 Released, which is based on Movable Type.[16]

2.2 How CMS Works

CMS uses MySQL, SQL Server as a relational database to store data which are categorized by department and hierarchy. It uses HTML/PHP template to get the quality control and design standards throughout the website. A physical cache is created when an individual department publishes something and they are stored in their corresponding directory. This helps to speed up the performance by avoiding unnecessary database calls.

One can choose and use different kind of templates and use various graphical styles of

these templates. One can get a diverse look by applying different template elements.

Non technical employees each get their own username and password by which they are able to work on their own department and make changes to their own associated department. They can add as many web pages, files download (xls,pdf etc) and specialized content (calendar events, web links etc) as they wish which can be set to expire automatically or can be manually done. A built in review feature which allows department heads or other admin to review changes before pages are published to the website. This review feature makes sure that the posted content is accurate and reflects the overall goal and mission of the corporation or organization it represents.

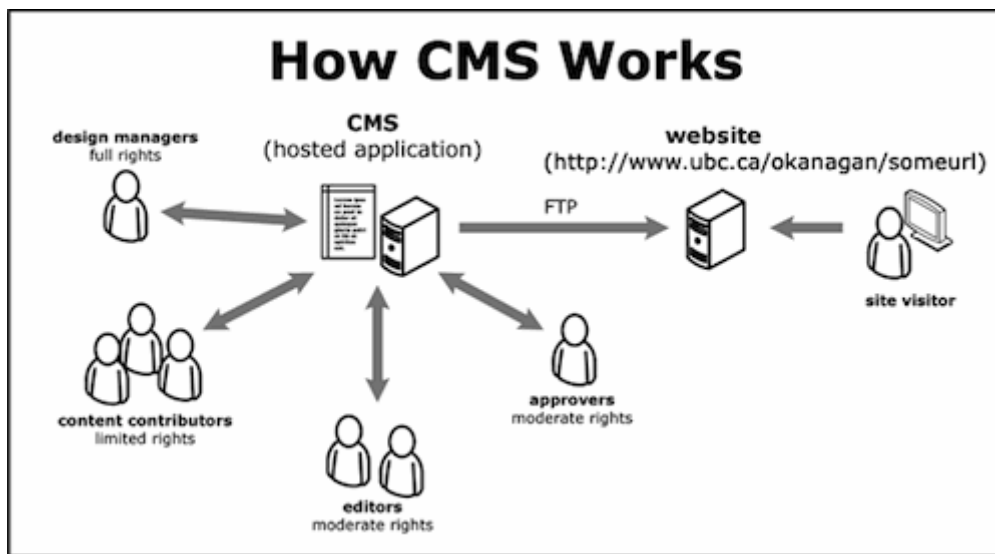


Fig 1: How CMS works [24]

2.3 Types

Depending upon the types of content, there are different types of CMS. Contents like audio, video, text, graphics, blog etc dictates the type of CMS .So, it can be categorized according to the types of content and below are few examples of CMS system.

- **Web**
- **Enterprise**
- **Mobile**
- **Component**

| Acronym | Stands for... | It really means.... | Examples |
|-------------|------------------------|--------------------------------------|---------------------------|
| WCMS | Web Content Management | Sytem that allows to create,edit and | WordPress, Joomla, Drupal |

| | | | |
|-------------|---|---|--|
| | System(often referred to as simply CMS) | manage content of web pages | |
| ECMS | Enterprise Content Management System | used to capture, manage, store, and deliver content and documents related to organizational processes | EMC Documentum, Atlassian Confluence, Oracle WebCenter |
| MCMS | Mobile content management system | System where content can be store delivered into to mobile devices | Wap-2-Go, Mofuse and Synapsy. |
| CCMS | Component Content Management System | System which manages content at a deeper or granular level | Vasont,XDocs, easyDITA, DITAToo,SDL LiveContent and others |

Table 1:Types [12]

The above table briefly shows different types of content management systems and their examples as well. Detailed information about them is given below.

2.3.1 Web CMS

A web content management system is a software tool which is used by both technical as well as non technical person to create ,edit and manage a structures web pages . It helps the user to create and manage a web page without any need of prior technical skills. [6]

In WCMS, the system is based on series of templates forming a structure of a website which is used to create the content of the website. The editor/author uses these templates and inserts content which are published onto the site. This is applied to internet websites, intranets and extranets. [5]

2.3.2 Enterprise CMS

Enterprise Content management system is a tool, method which is used to capture, manage, store, preserve, and deliver content and documents related to organizational processes. ECM is a tool of organizing and storing an organization document and other

content that are related with organization's process. ECM tools allows to structured and manage the information of the organization wherever that information exists. [7]

It handles the content, assets, records and other information which are related to the structure and hierarchy of an organization. [5]

To structure the information, processes, tools and strategies which includes scanning, tracking, indexing and collaboration with the aim of streamlining the management of company information are arranged. [5]

2.3.3 Mobile CMS

Nowadays mobile technology industry has developed a lot . It has become an important part of our lives. Mobile devices include mobile phones, smart phones, and PDAs. Mobile content management system (MCMS) is a type of CMS where content can be store delivered into to mobile devices. [8] It was originally designed for the business to customer (B2C) market but have expanded to include business to business (B2B) and business to employee (B2E). [5]

2.3.4 Component CMS

In component content management system (CCMS) there is a CMS which manages content at a deeper or granular level. In CCMS, each component represents a single topic, concept or asset (for example an image, table, product description, a procedure).[9] In CCMS, a single piece of content such as a paragraph of text, a photograph or a graphic is consider rather than a complete document, which is stored within this system. It is used many times within a document or in a series of documents ensuring a consistent approach. Each piece of content has its workflow and can be tracked as a single or part of larger system. [5]

As my thesis is more focused on web content, I have discussed more about WCMS. WCMS typically consists of following features:

- Automated templates: Used to create standard output templates (usually HTML and XML) which can be automatically applied to new as well as existing content and allow changing of the appearance of the whole content from central place.
- Scalable expansion: Available in most modern WCMSs .This features allows a user to expand a single implementation (one installation on one server) across multiple domains, depending on the server's settings.

- Easily editable content: With this feature the author can easily edit and manipulate the content. Most WCMS software consist of editing tools allowing all the technical as well as non technical individuals to create and edit the content easily and quickly.
- Scalable feature sets: All WCMS software consist of advance plugins and widgets which can be easily installed which enhances the existing site's functionality.
- Web standards upgrades: Generally WCMS software have regular updates which includes new features sets to keep the system up to current web standards
- Workflow management: It is the process where sequential and parallel tasks that must be accomplished in the CMS are created. For example, one or many content creators can submit a story, but it is not published until the copy editor cleans it up and the editor-in-chief approves it.
- Access control: By using this feature one can control the access to one or more groups . It allows to control how registered users interact with the site.
- Collaboration: This feature allows users to work and retrieve on the same content. User can track the changes made and can revert the changes if they think its of no use. More than one user can make changes on the same content.
- Delegation: This feature allows limited privileges over specific content on the website
- Document management: It allows managing the life cycle of a document from its creation, to the revisions made till its destruction.
- Content virtualization: It allows user to work on the virtual copy of the entire website which enables user to view and execute an interdependent document before submission.
- Multilingual: The system is used to display content in multiple languages.
- Versioning: This feature allows versioning and authorized users to retrieve previous versions and to continue from a selected point . This feature is best used where content is changing overtime and requires updating [4].

3 Content Management System applications in cross media publishing

Content management system can be either proprietary or open source (OS). Proprietary software, also known as closed source software are solely the property of their author or owner. Proprietary software cannot be used, modified, copied or distributed without proper licensing agreement. [10] To use these kind of software one should require purchasing of the license. Still licensed holders cannot make alterations or changes or duplicate the software until and unless they purchase a more expensive developers license. One example of proprietary CMS software is Wix online content management system. [11]

It's easy to use the software above but the main disadvantages of using them are their cost of license and not being supported by all web hosting companies. [11]

Since Proprietary software has a few downsides, many small or medium business owners uses Open source software. Open source software are free and can be modified according to your need. Some of the benefits of Open Source Software are

- They are free so no need of purchasing license or fees to upgrade or any kind of agreement
- They can get free plugins, widgets and complimentary tools to develop your website as anyone can develop an open source application
- can get thousands of free templates. [11]

Depending upon your need and availability, you can choose different kind of CMS softwares. So to develop a website it should be easy for the developer to create it and it should be user friendly for the end users. To ensure this, developers should run tests on functionalities and the usability of the site. The developer should also keep in mind its compatibility with PHP.

There are many CMS developiong platforms . A few of the popular ones are discussed below.

3.1 Drupal

Drupal is a free and open source CMS used to build websites and applications. It is said to be one of the secured management systems. It is a multi-user sytem. It allows users to browse as authenticated or just as anonymous without being logged in. It is used by thousands of high profile websites as its core code has been proven to prevent common security vulnerabilities such as those defined by the Open Web Application

Security Project (OWASP). While installing Drupal, you get a pre-configured theme which can be customized later by the developer. It is mainly used for blogs and other portals and consists large community of users and developers with a third party plug-in. [13] Although it is free and you get pre-configured theme, it can be a little tricky for a first time user. Some of the companies using Drupal are AT&T, McDonald's, Duke and Stanford Universities, and Symantic, Fiju and Linux Foundation. [11]

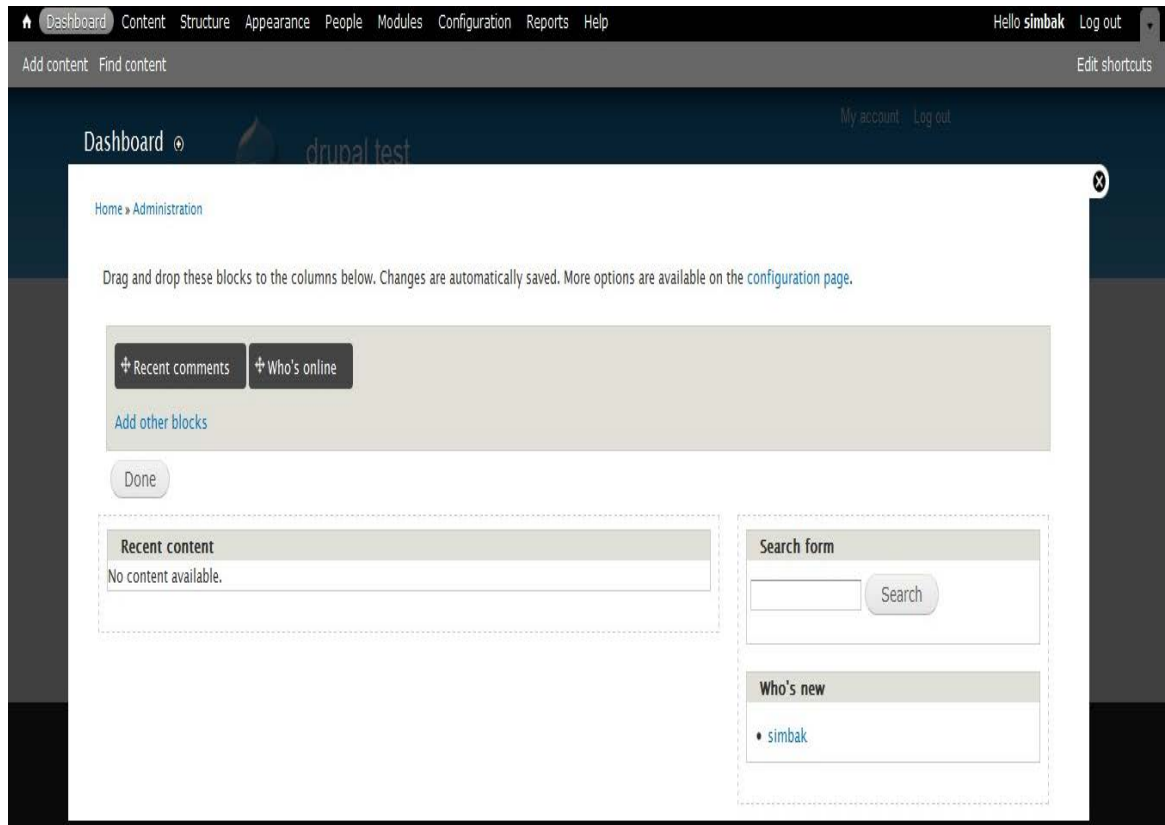


Fig 2: Drupal 7.18 administrative dashboard

Figure 2 above image is the admin dashboard of Drupal showing all the feature admin can do from the dashboard.

3.2 Joomla

Joomla is another free open source CMS used for publishing web content. It uses PHP language and object oriented programming (OOP). Joomla Means 'all together' in Swahili. It is easy to install and is very flexible as well .You can use it on blogs, sites, portals, e-commerce sites, news sites, personal pages, small companies' sites, big corporate sites, government's sites, online reservations systems and so on. It consists of advanced functionalities in a user friendly manner so a new user can understand and learn it quite easily. It has lots of extensions and many third party plugins most of which are free but some of them cost money. It supports multiple languages. It consists

of language manager which translates your website into another language. It also supports mobile devices like iphone, ipad and android. [14] Some companies that use Joomla are Olympus, Porsche, Sprint and Vodafone. [11]



Fig 3: Joomla 1.5 administrative control panel

The picture above is from the Joomla Admin control panel.

3.3 Wordpress

Wordpress is another free open source software used for building blogs, websites and others. It is based on PHP and MYSQL. It started in 2003 and has since grown to be the largest self hosted blogging tool. Today it is used in millions of websites around the globe and it is constantly evolving and developing as thousands of plugins, widgets are developed every day. It is best suited for personal websites, blogs, small business , and users with less technical knowledge and no desire to learn any programming skills. One can get themes, templates, plugins, widgets to enhance your sites for free and easily. It was originally developed as blogging tool but now used to create websites as well. Companies that use WordPress include About.com, Ford, People Magazine, Sony, CNN, eBay, Wired, and even Yahoo. [11]. It uses WYSIWYG editor, which makes it easier for non-programmers while writing content in a page as most of the things can be dragged and dropped from the admin back-end.

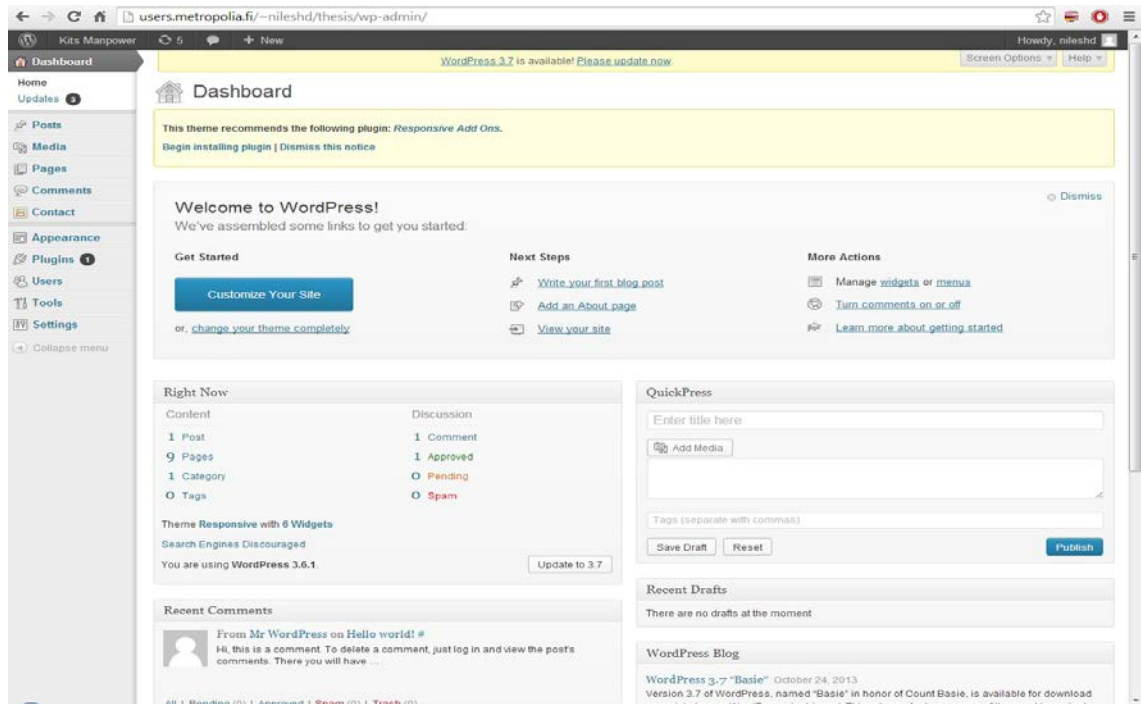


Fig 4: Wordpress administrative dashboard

The picture above is taken from Wordpress Admin dashboard showing all the feature admin can use from dashboard.

Comparison between CMS

Here in this section we are going to see the comparison between different content management systems.

| Product | Programming Language | Database | Web Server | FTP Support | UTF-8 Support |
|-----------|----------------------|--------------------|---------------------|----------------------------|---------------------------|
| Joomla | PHP | MySQL | Apache | Provided as a free add-on | Limited support available |
| Drupal | PHP | MySQL, Postgre SQL | Apache ,IIS | Limited FTP support | Available |
| Wordpress | PHP | MySQL | Apache, mod rewrite | Available as a free add-on | Available |

Table 2: Comparison of Different Web Content Management Systems [17]

The above table briefly shows the three CMS tools and compares each of them. Nowadays Wordpress has become the most popular tool.

| CMS | Ease of Use | Advantages | Disadvantages |
|---------------|---|--|---|
| Drupal | 1. WYSIWYG editor, user management feature and extensive support. | 1. Enables multiple groups of users to create, edit and publish content. 2. Integrates with social media, e.g. Facebook. 3. Supports more than 70 global languages. 4. Worldwide community, forums, 'drupal camps' and discussion groups. 5. More than 6,000 free add-ons. 6. Strong API. | 1. Steep learning curve. 2. User interface can be confusing for new users. 3. Overpowering for small websites. 4. WYSIWYG editor is not part of the core (add-on) 5. Difficult to install and control. 6. Noticeable differences between the different versions. |

Table 3: Drupal

Source: <http://www.cms.co.uk/cms-comparison.html>

The table above gives us the knowledge about Drupal. It shows the main advantages of the tool and its drawbacks. One important thing about Drupal is that it supports social media as well as languages. It has got many add-ons for free which can be used to enhance your website.

Similarly the table below shows the features of Joomla including its advantages and disadvantages.

| CMS | Ease of Use | Advantages | Disadvantages |
|------------|--------------------|-------------------|----------------------|
|------------|--------------------|-------------------|----------------------|

| | | | |
|---------------|--|--|--|
| Joomla | <ol style="list-style-type: none"> 1. Powerful CMS which is easy to install and use. 2. Easy to customize: does not require any programming expertise. | <ol style="list-style-type: none"> 1. A mature system which installs automatically. 2. Support for many operating systems, e.g. Windows. 3. Vast array of extensions, e.g. forums, blogs, galleries etc. 4. SEO friendly links. 5. Extensive support and documentation. 6. Customizable and easy to control. | <ol style="list-style-type: none"> 1. Better suited to large websites rather than small sites/blogs. 2. Fewer new extensions. 3. Smaller community. 4. Novices may find it difficult to learn. Complex system. 5. Can be a target for hackers. 6. A drain on server resources. |
|---------------|--|--|--|

Table 4: Joomla

Source: <http://www.cms.co.uk/cms-comparison.html>

Joomla is easy to install and can be customized and controlled easily by the user. It has got lot of extensions which can be used for the development of the website. These are some of the features that made Joomla popular among the management tools .

| CMS | Ease of Use | Advantages | Disadvantages |
|------------------|--|--|--|
| Wordpress | 1. Easy to use and maintain via the in-built dashboard. Ideal for non-technical users. | 1. Able to extend functionality by means of specially designed plug-ins. 2. Can set up single or several blogs. Very popular blogging platform. 3. SEO tools for optimization and improved site rankings. 4. Large community. 5. Access to Codex: tutorial website. 6. Easy to upgrade (single click only). | 1. Have to keep abreast of constant upgrades and third party tools. 2. Heavy drain on server resources/performance: too many add-ons can slow down a site. 3. Vulnerable to hackers. 4. Sites built with this require more maintenance. 5. Steep learning curve for newcomers. |

Table 5: Wordpress

Source: <http://www.cms.co.uk/cms-comparison.html>

Wordpress is one of the most popular maintenance tools used nowadays. It has become popular in recent years. It is used as a blog tool but now because of its features, it is used for website development as well. It is easy to use and can be maintained by admin through the dashboard which is quite easy. The above table shows its important features which made it popular among the website developers.

Usage of content management systems for websites

To read the diagram: 65.3% of the websites use none of the content management systems monitored in this study. WordPress is used by 20.6% of all the websites, meaning is a content management system market share of 59.4%.

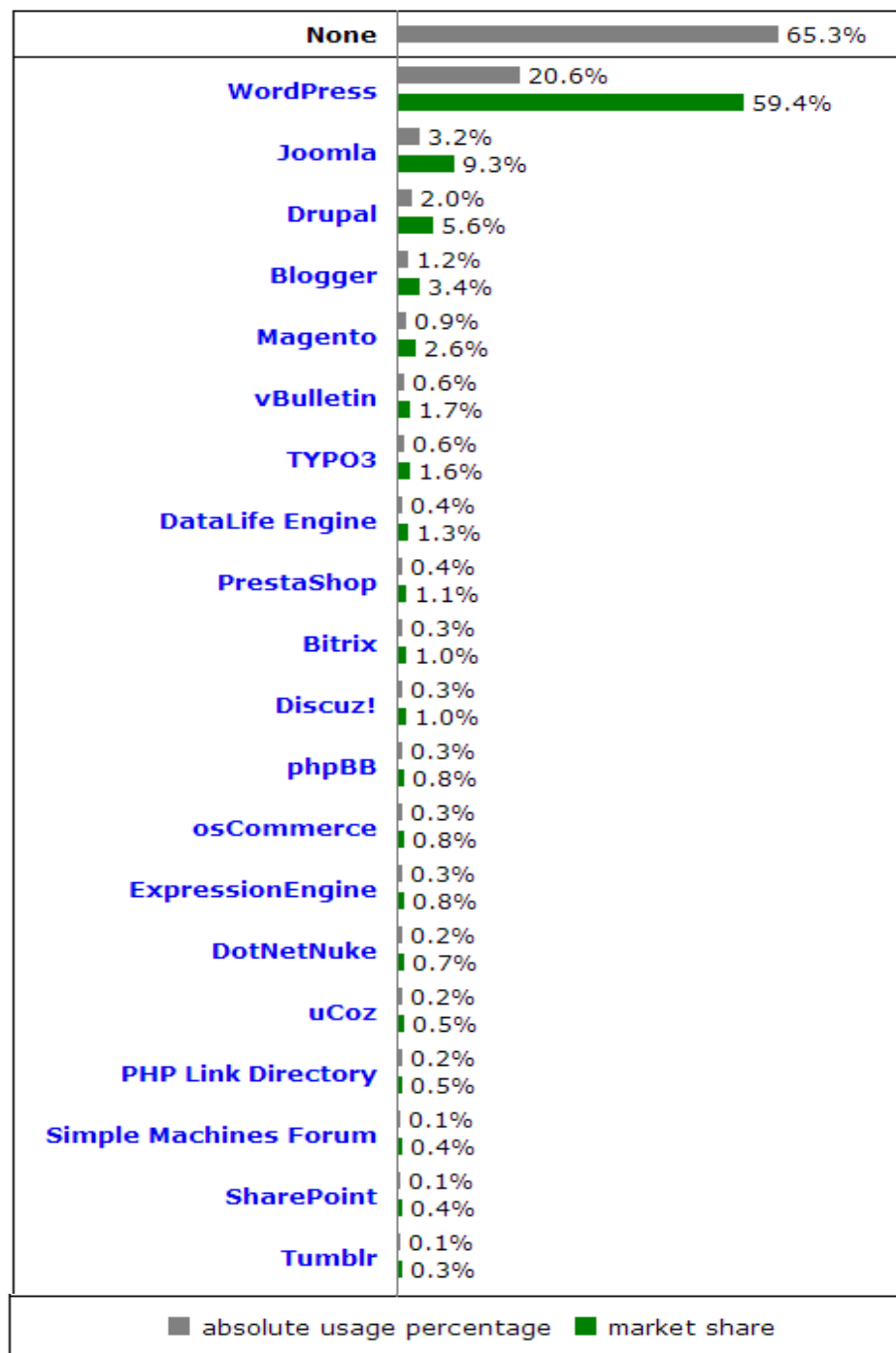


Fig 5: Percentages of websites using different kinds of CMS.

Source: http://w3techs.com/technologies/overview/content_management/all

The above figure shows that out of all tools Wordpress is used most. It is easily available and all the plug-in can be found free of cost and easily.

Out of three most popular management tools the most searched tool is Wordpress. The figure below shows the statistics of how much it is downloaded.



| Download ▾ | View as text ▾ | Sorted by |
|--|----------------|------------|
| <input type="checkbox"/> wordpress ▾ | Low | 30,400,000 |
| <input type="checkbox"/> drupal ▾ | Low | 6,120,000 |
| <input type="checkbox"/> joomla ▾ | Low | 11,100,000 |

Table 6: Global monthly search

Source: <http://www.webnethosting.net/wordpress-vs-joomla-vs-drupal-cms-popularity-war/>

Wordpress is widely used for both blog and website development hence it is downloaded most and it is also easy to use. All necessary components for website can be found in the form of plug-in.

3.4 Cross Media Publishing

Nowadays Cross media publishing plays an important role in developing websites. Due to the development of various devices like smart phones and tablets, it has become essential to think about cross media publishing while developing a site. Most of the people nowadays use smart phones or tablets to browse the sites to get information so, therefore, developers have to think about that.

However, there are a few challenges as well to fulfil the requirements as each and every device requires their own treatment in order to deliver your communication in an appealing way.

Designers have to focus on each and every detail like text, images, graphics, video and audio so that they can attract the users and users can also follow them with ease. Some technical challenges have to be dealt with like RGB (Red Green Blue) colour space and lower resolution while publishing in web. Sometime designers have to crop pictures differently depending upon the device. [23]

There are some things that should be considered for cross media publishing. Content Reuse is one of the important things that should be considered. Developer should think carefully so that one does not have to write the same content in different places. They should reuse the same thing in different places. For example you can create content

such as headlines which can be reused. [23] For example a story for laptops can be longer than for a smart phone. [23]

CMS tools such as Wordpress and Drupal create designs that can be used in all types of devices and they are easy to develop. This can be done easily without any coding. Also it synchronises content and design across different media which helps to update your content and design easily. You can also edit pictures according to the different media without changing the original image so that you do not have extra version of each media. You can just scale or crop the image in different ways without changing the original image. [23]

You can also use the same content in different types of media and you do not have to apply separate styling for each media type as same text is used according to media device. [23]

3.5 Effect of Social Networking sites

Nowadays people from one part of world connect with another person from another part of the world through social sites. Social networking has become important in every aspect of life. So it is also important in the CMS. People everywhere can the world thorough the websites. They may know the facts about a company as well as the surroundings around it. Social media has become the new tool for businesses to implement their marketing strategies. With less effort and creativity and multiple platforms to utilize, social media offers unparalleled opportunities for companies to reach customers and establish brand awareness.

Using social sites in the CMS helps to develop the business of the website and the company related to it. Integrating social sites in CMS will be beneficial as it will help to enhance the information discovery and delivery. It allows to get connected with a wide audience which makes it a useful and effective recruitment tool. It also improves the business reputation and with less amount of effort, users learn about the company and its goal. It acts as an advertisement which will help to improve the business of the company. With less amount of cost, it helps to broaden the exposure of the company to the public. The two way communications through social media improves customer service and also enables to gain more information about the customers and their needs.

Social media helps to attract the attention of your product or service to the audience cost effectively and also further builds loyalty and long term relations with the audience. It can be a fun and creative method of doing business.



Fig 6: Different types of social media

The above figure shows different social media that are used on websites. Some of these are used in most of the site nowadays.

4 CMS VS Hard Coding

Everything in this world has advantages and disadvantages and also CMS and Hard coding both have good and bad sides. The debate of which is better is faced in each and every office that deals with the web based services. [18]

A CMS runs from a database and there are no pages on the server. In CMS the text and publishing instructions are held in database and the server builds the pages on demand while the images are drawn from the usual folders. Visual editor is used to interact with the database and it is done by the website manager who does all the necessary changes in the pages instantly. [18]

Users can update the content. Depending upon the user permission one can edit all pages or just a few of them including text, pictures and links. [20] The users do not need any technical knowledge. Some time a brief training is necessary which doesn't take that much of time. [19] In Hand coding users must have pre knowledge and skills like HTML, JavaScript, CSS and beyond. [21]

Templates control the look and feel of the site which can be easily altered and customised according to the need of the users. [19] Content and design are separated so, if you make changes to the content, it will not affect the design and vice versa. New features or even plugins for advancement can be done with a few clicks which enhance the functionality as well as look of the site. In CMS it is easy to get members with various privileges who can access the site or some part of it. [18]

In main advantage of hand coding is that one can get exactly what he/she wants. One can create a custom template and keep moving forward with it. In hand coding the less content there is the faster and reliable your site will be.

It is difficult to get help in sites developed by hand as everyone has different style of coding and it will be difficult for some developers to follow the structure of other's script. With CMS you can build a site in no time as you can use default theme and plug-ins and widgets. If you have a problem there is a large community of developers available to address and patch the problem. [18]

You can hire programmers with CMS knowledge who find it easy to drag and drop functions than with hand coding. [18]

Some of the features of CMS are [22; 18]

- Browser-based administration
All the work is done online with browser based interface.
- User friendly interface
- WYSIWYG approach
It has a unique editor which allows developers to edit and update the content with immediate results of their actions.
- Content versioning
All changes can be saved for later approval and publishing.
- RSS feed providers
Automatically all RSS feeds are provided
- Search Engine Optimization (SEO)
Users can place their sites or portals on the top of the all major search engine.
- Ease of Design adjustment
You can have a different look on each page
- Initial cost

Initially the cost is higher but if you change things frequently then it is cheaper to run and you can add functionalities without much to spend.

- Rollout time

It can build sites in less time compared to hand coding.

- Capability

With the help of plugins and other features CMS sites are equally capable of doing things like hand coded sites.

Both Hand coded sites and CMS keep on existing .Hand coded sites will always be there no matter how CMS develops. Hard Coded sites will exists for companies which needs few pages and wants them according to their own need. Hard Codes sides are basically used by companies with big budget so they can give extra time and money to customize it while CMS and other database driven will take over companies with small budget and those who need quick result. [18]

5 Design, Functionality and Features

This project is about a company called Kits manpower registered under the name of BhumiHandicrats. Basically the client wants to start a new venture by contacting offices and company and they can post the jobs on this site. Users can submit their application and the company and client can communicate further once the company gets the person who fits their requirement. In the website, there is a brief description about the country. There is also detailed information about the company, how it operates and all the other necessary information about the company like where it is located. In the website there is information about the company and users can contact the company through mail to get extra information about anything the want. They can also check their Facebook page as well as YouTube page .On the website there is a brief description about the objectives of the company and documents required once the person is selected and other information. Users can check the jobs they are looking for and can apply by using the applicant form or if they have LinkedIn profile they can use that as well. LinkedIn button is also there on the page which means users do not have to fill up the form. The details from there LinkedIn profile will automatically be sent to the company. Figure below shows the actions performed by the user while visiting the website.

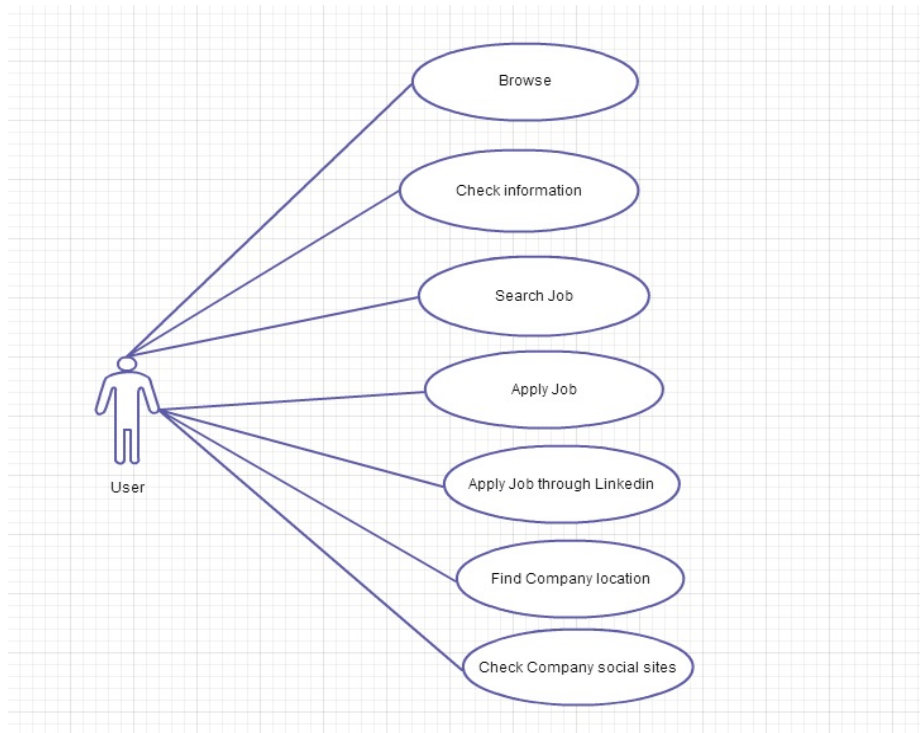


Fig 7: User's Use case diagram

As shown in the above figure, once the user has access to the internet they can type on the website on their browser. They can check the information about the company or other documents which they might require. They can check the job listing in the page and search as well. Once they find the appropriate job, they can apply for the job through the company basic information form where they have to fill up every required information or they can use their LinkedIn profile by clicking the LinkedIn button. Once they fill up the form they can submit or use LinkedIn username and password to apply for the job. They can also use the Find us Page which has a Google map. With the help of this page they can visit the office and deal with the problem face to face. They can contact the employer through mail as well in Contact us Page.

Using Wordpress

In old days people used HTML pages for web design. This kind of website consists of a file for each page. People with technical skills are able to edit those files and the editor needs certain technical skills to edit it.

Nowadays, Wordpress has become one of the most powerful and popular platforms for building a website. People with basic technical skills can easily build and edit the website. Wordpress is by far the best and most user intuitive platform. It consists of loyal

supporters who are constantly helping the development of the functions and other features. Wordpress.org is the link to check the latest development and information about the wordpress. Wordpress is an open source software used to build blogs, websites. It has grown a lot since it started in 2003 and become the largest self hosting blogging tool .It is based on PHP and MYSQL. In this project, I used Wordpress to design the application.

Using Wordpress for the first time

Installing Wordpress is quite a simple process but sometimes it can be tricky because of the database and FTP servers used. Under most circumstances, Wordpress can be installed with ease. Nowadays there are webhosts which provide tools to install Wordpress automatically for you. Following steps should be followed if you want to install Wordpress by yourself.

- Download Wordpress
- Unzip the folder
- Setup your FTP program
- Get your FTP Access Information
- Setup your SQL database
- Edit Config file with your Database information
- Upload Wordpress to your server
- Run the install Script

I followed following steps to install Wordpress in Metropolia Server

- Create a database password for yourself on <https://amme.metropolia.fi/mysql/>, your database already has a username, that's the one you use in Tuubi.
- Make sure you can log on to your DB in <https://users.metropolia.fi/phpMyAdmin> (this is where your WordPress data will appear if you ever need to edit your DB contents)
- Download the WordPress installation files from <http://wordpress.org/download/>
- Unzip files and upload to your Metropolia server space using WinSCP. Be sure to put the files inside public_html.
- Edit wp-config-sample.php. The file needs your database_name (Tuubi username), database_user (also Tuubi username), database_password (created password in step 1), database_host (mysql.metropolia.fi) and the authentication keys called SALT.
- After editing, save file and name it wp-config.php

- Browse to the folder you put the Wordpress files in using your favorite web browser. Follow the installation wizard.

Following code from wp-config.php file should be configure first to run the website

```
// ** MySQL settings - You can get this info from your web host ** //  
/** The name of the database for WordPress */  
define('DB_NAME', 'niles hd');  
  
/** MySQL database username */  
define('DB_USER', 'niles hd');  
  
/** MySQL database password */  
define('DB_PASSWORD', '*****');  
/** MySQL hostname */  
define('DB_HOST', 'mysql.metropolia.fi');  
  
/** Database Charset to use in creating database tables. */  
define('DB_CHARSET', 'utf8');
```

5.1 Overview

Dashboard

Dashboard is the first screen one sees when logging into the administration area of your website. It is the admin area where you can manage your website using the menu. It is a place where you can get an overview of what's happening with you site. The figure below is the dashboard of Wordpress.

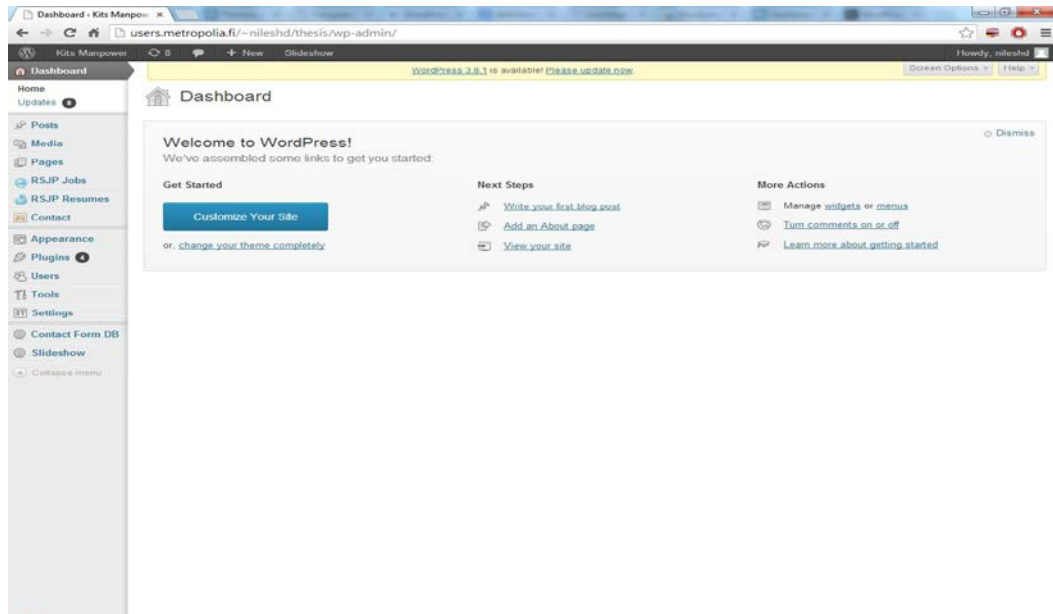


Fig 8: Dashboard

You can manage post and pages, can add media check the appearance of your website and so on. It is like a bird's eye view of operations from which you can swoop down into particular details of your website.

Navigation tools

Theme

A wordpress Theme is a set of files which determines how your website will look and feel in the web. Theme is a collection of files that works together to give the graphical interface for your website. It contains information about the general layout of the site and other content such as graphics, headers, logos and footers. There is a large collection of themes from which you can choose.

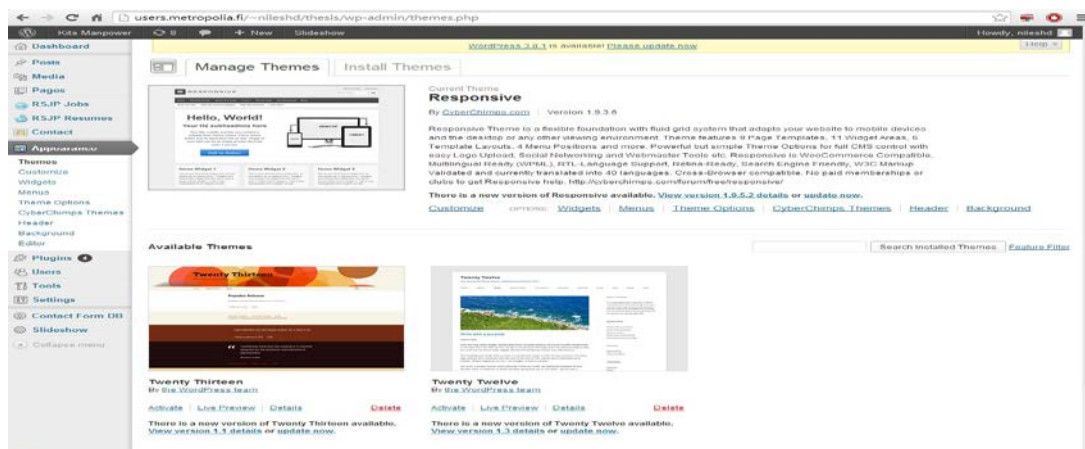


Fig 9: Theme

You can check the theme from the dashboard under the appearance menu and change your theme as often as you like. The figure above is the place where you can find the theme in the admin panel.

Plugins

One of the important features of WordPress is plugin which allows users to do anything they want to extend the functionality of WordPress. It is collection of codes that add feature to the website. There are around 26000 plugins and its number is increasing day by day and it is free as well. You can browse and choose a plug-in which is suitable for your site. WordPress Plugins are available from several sources but the "official" sources for WordPress Plugins are Official WordPress Plugins Repository.

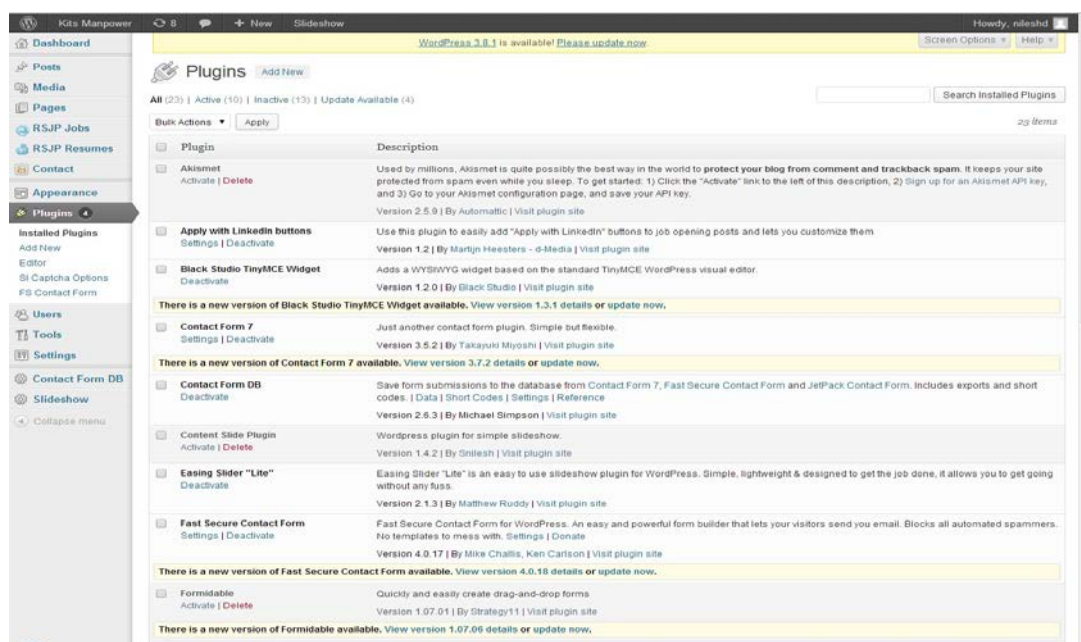


Fig 10: Plug-in

Plugins gives users to add custom functions and features so that each user can make changes to their site according to their own specific needs. The figure above shows the plugin tab in the admin panel.

Widgets

Widgets are small pieces of content that add content and feature to your sidebar. Widgets can be added, arranged and removed from sidebars. It makes it easy to customize the content of the sidebar. Widgets do not require any code expertise or experience. They may contain some simple static content like a newsletter subscription form, introductory text, advertisements or some dynamic content such as a list of recent tweets from your Twitter account.

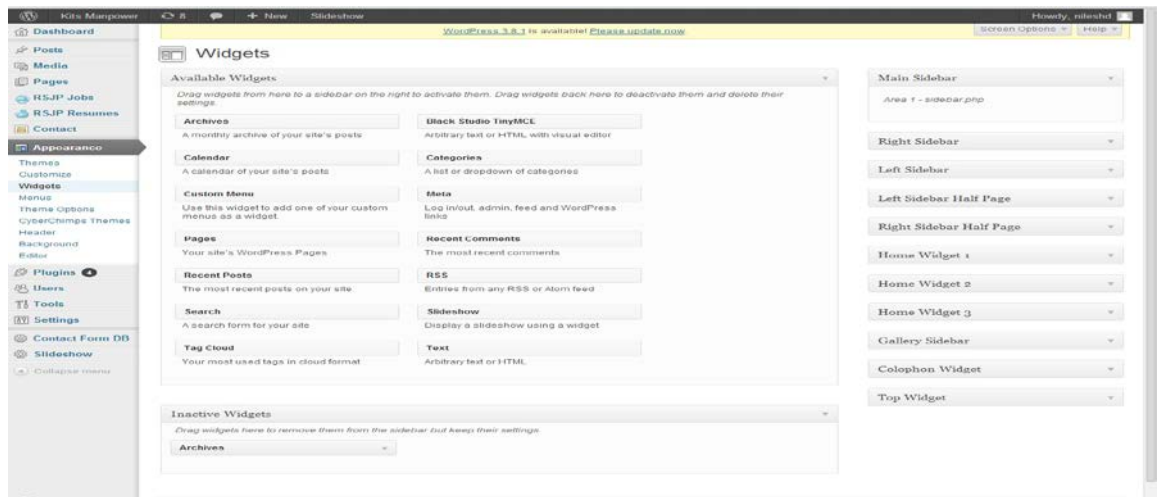


Fig 11: Widget

You can access the widgets from the dashboard under the appearance menu. The figure shows where you can find the widget area in the admin panel.

5.2 Design

The design of the website is very simple. The theme used for this website is a responsive theme which can be used in all type of devices. The main advantage of responsive theme is it adapts the website to a mobile, laptop or any other viewing environment. This website can be viewed in all types of devices with ease. It can be loaded in laptops, tablets as well as mobile phones without any distortion in the design. As mobile phones have less power than desktops and laptops, the website should have a quick response to all devices. The pages on the website are kept simple and fonts used are also simple and eye catching so that users can see clearly what they are looking for.

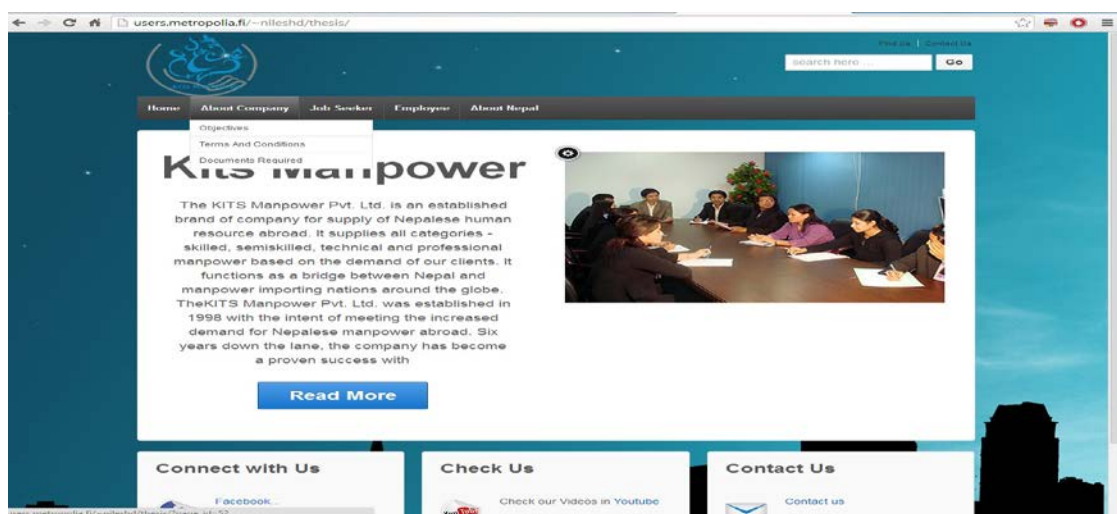


Fig 12: Homepage of the Website

The navigation used is horizontal with all the pages listing in the menu. The homepage gives the basic information about the company and gives the basic knowledge about the company and what it does. The homepage consist of links to different social pages like Facebook, YouTube. Social sites nowadays play an important role in marketing. With a find us page users can find the company's address and meet the staff personally. In Find Us page, Google map is used which gives the detail information about the location of the company and users can use that map to track the building if they want to visit the company. There is another option for users, they can contact through email .Contact us page is built for this purpose. For security reason there is a recaptcha (random word that have to fill) used so unwanted guest cannot send unnecessary emails to the company.

5.3 Functionality

The website contains features that will give a detailed view about the company. Once the user types the website address in the browser, the homepage of the website comes up which consists of brief description about the website. There is a button upon clicking which user can get to know the detail information about the company. Once the button is clicked, it goes to different page which consists the company detail information.

There is an image slider on the homepage which is used to make the website more attractive as well as give it the look of the website .Basically it shows the images of the company and slides automatically and once the images end, it restarts and the scrolling goes on.

There are two menus used in the site. The Header menu is the main menu and consists most of the pages and the Top menu which consists two pages including Find US and Contact Us page. The header menu is basically used for the navigation. The header menu is used to navigate the user to different pages with ease. Users can navigate to different pages by just clicking the menu items. The Menu is used so that users do not have a problem browsing through the website and can find whatever they are looking for with ease.



Fig 13: Menu

Another menu top menu is presented on the top right corner of the website. It consists of two pages.

On the bottom of the page, there are three boxes called widgets section. In these boxes three different functions are used. The first box consists of Facebook function. There is a facebook icon and by clicking to this the user can go to the company's Facebook profile. Nowadays social networking is an important part of the business advertising so, users can check the facebook profile and get to know more about the company.

To show facebook on this section following code is used

```
<p><a href="https://www.facebook.com/rhythmoverseas" target="_blank"> Facebook </a> ...<a href="http://users.metropolia.fi/~nileshd/thesis/wp-content/uploads/facebook.png"> </a></p>
```

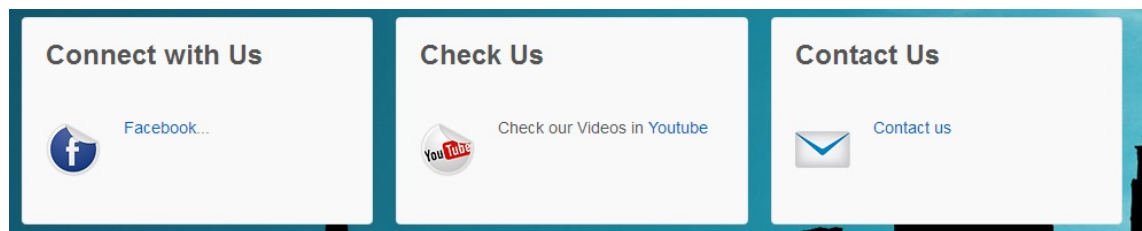


Fig 14: Widgets

There is another box also for social purposes. It consists of YouTube icon and upon clicking on that icon, users can go to company YouTube page and get more detail views. Users can check the latest videos posted in YouTube by company so they can know the company better. This code is used to display YouTube link in this section.

```
<p><a href="http://users.metropolia.fi/~nileshd/thesis/wp-content/uploads/youtube.png" > </a> Check our Videos in <a href="http://www.youtube.com/watch?v=8n83d21CI28" target="_blank"> Youtube </a></p>
```

Another section consists of contact us. Upon clicking this, users are redirected to company's contact us page. Here the user can contact company through email. They can ask the problems or other queries through email and once they send the mail they have to wait until the company personal will reply them through mail.

This code is used to display the link in this section.

```
<p><a title="Contact Us" href="http://users.metropolia.fi/~nileshd/thesis/?page_id=65"> Contact us </a> <a href="http://users.metropolia.fi/~nileshd/thesis/wp-content/uploads/mail.png">
</a></p>
```

A same background image is used throughout the website to make the website more eye-catching.

Plugins

Plug-ins are an important feature used in Wordpress which allows users to add features to the website. It gives users a chance to add custom functions and features. I have used some plug-ins in this site. WordPress Plugins are available from several sources but the "official" sources for WordPress Plugins are Official WordPress Plugins Repository. Once you find a suitable plug-in for the website, you can install the plug-in by going to dashboard and selecting a plug-in install. The plug-in must be activated and it can be done by going to plug-in menu and clicking activate link. There are plug-ins for sale but on this project I only used free plug-ins.

Apply with LinkedIn buttons

This plug-in is basically used to add LinkedIn button in your website. You can customize the button and add it wherever you want on your website. It can be added on pages as well as posts. It contains a feature where users can configure the display option. Users can customize the styling option. They can also add a containing div with classnames and add your own stylesheet.

To install this plug-in following steps should be followed

- Unzip the file downloaded and move the unzipped folder to your /wp-content/plugin/directory
- Activate the plug-in by going to dashboard and to plug-in menu

- Configure the plug-in before using it and you can do it by going to settings of the plug-in.
- Set up the API key for using it.
- After getting API key and doing all settings you can use the shortcodes to add the plug-in in your pages or posts.
- Change the email address to your own and change job title and company name according to your own need.

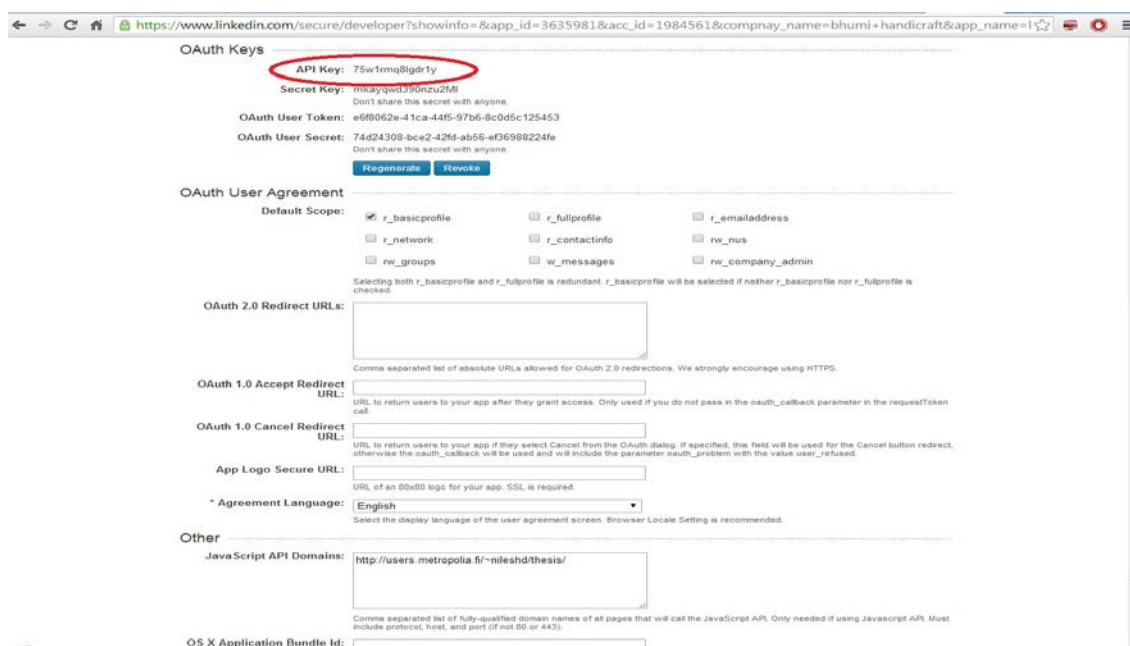


Fig 15: Getting API key for LinkedIn Button

Once the API key is set and all the other setting are done you can use the following shortcode to add the button to the pages or posts.

```
[applywithlinkedin    jobtitle="Job    title"    companyname="My    Company"
email="myemail@address.com"    logo="http://yoursite.com/yourlogo.png"    theme-
color="#ff0000" coverletter="required" size="small"]
```

In the code above you have to change the job title according to your post to differ from each entry and the company name as well. You also have to change the email to your own email id, everything else is optional like logo, theme etc.

Black Studio TinyMCE Widget

This plug-in helps the user to add a WYSIWYG text widget based on the standard TinyMCE WordPress visual editor. Wordpress text widget does not have all the functions so this plug-in helps to add visually rich text contents to your sidebars. Users can add it and they do not need any HTML knowledge to use it. The main features of this plug-in is that it adds rich text widgets to your sidebar. It uses a visual editor and users can easily switch to visual mode or HTML mode. Users can also add Media files in the sidebars from Wordpress Media Library. Some of the features like full screen mode, widget accessibility mode, multi-site mode as well as multi- language mode are supported.

To install this Plug-in you have to follow the following steps.

- Once you get the unzip file move the entire folder of the plug-in to the /wp-content/plugins/ directory
- Activate the plug-in.
- Then go to dashboard and then to appearance and to widgets.
- Drag and drop the visual editor widget to your desired sidebar or wherever you want to use or you can do it in accessibility mode by clicking add link
- Then you can use the editor and fill in the title, text and media.

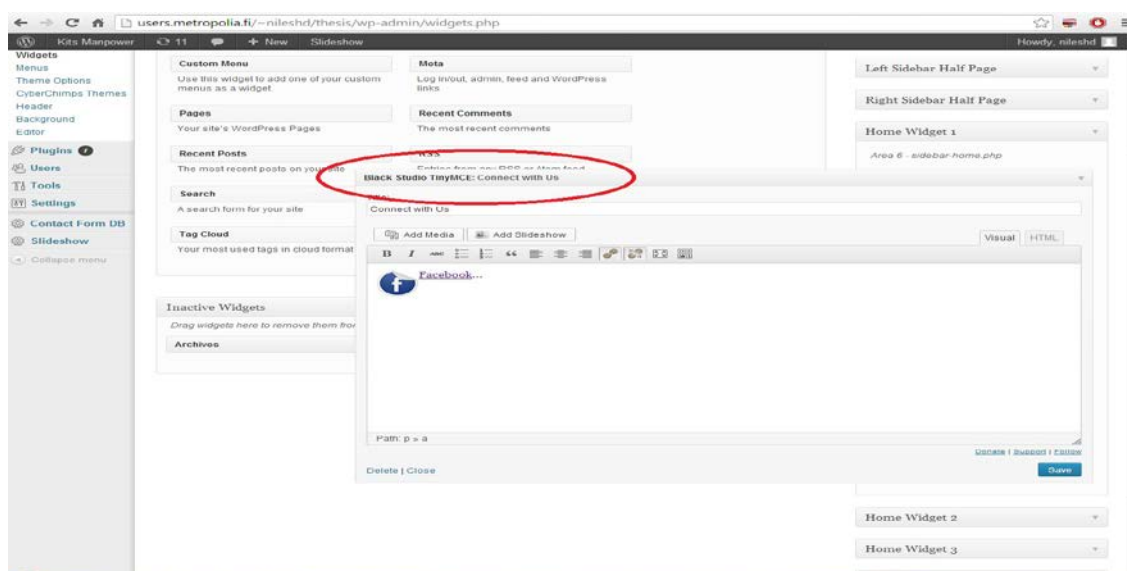


Fig 16: Black Studio TinyMCE Widget Plug-in

I have used this plug-in in the homepage in the three widget boxes to edit the text and media files.

Contact Form 7

Contact Form 7 is a plug-in used to manage multiple contact forms which you can customize according to your own need. You can customize the mail contents flexibly as well with just simple markup. This plug-in form supports Ajax powered submitting CAPTCHA, akismet spam filtering and others for more security.

To install it you have to follow the following steps

- After downloading and unzipping the plug-in move the entire folder to the /wp-content/plugins/ directory..
- Activate the plug-in in the plug-in section.
- Once you activate it you can get a contact menu in your Wordpress admin panel and you can use it wherever you want in your pages or posts.

This plug-in is used in the Contact Us page where users can contact the company through email. Users can simply fill up the form on this page and submit it. Once the company personal gets the mail replies back to the user through email.

The following code is used to built the page

```
<p>Your Name (required)<br />


```

Once the form layout is built one can get the shortcode of the form. By using that code one can use the form in any pages of the website. The shortcode that I used is

```
[contact-form-7 id="138" title="Contact Us"]
```

users.metropolia.fi/~nilesd/thesis/7page_id=65#FSContact2

Contact Us

Please make corrections below and try again.


* indicates required field

Name:*
Please Enter Your Name

Email:*
Please Enter a Valid Email Address

Subject:

Message:*
Detail about your Subject


CAPTCHA Code:*
Please complete the CAPTCHA.

Find us on YouTube
nls40
2 videos

Join On Facebook
Find us on Facebook
Facebook Developers


2,977,451 people like Facebook Developers.


Fig 17: Contact us page

The page is verified so users have to fill up every detail like name, email id etc before submitting the form and for additional security a CAPTCHA is used which will be described later.

Easing Slider "Lite"

This plug-in is used for displaying images as a sliding video. It is an easy tool for slideshow built to be lightweight so that the browser can load it quickly and easily. The main feature of this plug-in is that it is fully responsive and can be used easily. You can use this in any page or post and the response time is good so it displays in mobiles and tablets. The plug-in is lightweight and the size is only 16 kb including its styling which makes it easier to load in mobile devices. You can upload bulk images from the Wordpress media library. There are navigation, arrows and pagination used in the plug-in. For ultra smooth playback CSS3 is used. There is also visual editor for basic styling which allows user to style the slideshow according to their own need. It is developer friendly with built in JavaScript events and contains lots of actions and filters. Because it is tested in mobile phones and tablets, it gives smooth transition in all devices. You can customize the plug-in according to your own need by using Wordpress Action and Filter APIs. You can create your own external functionality or modify it to your use.

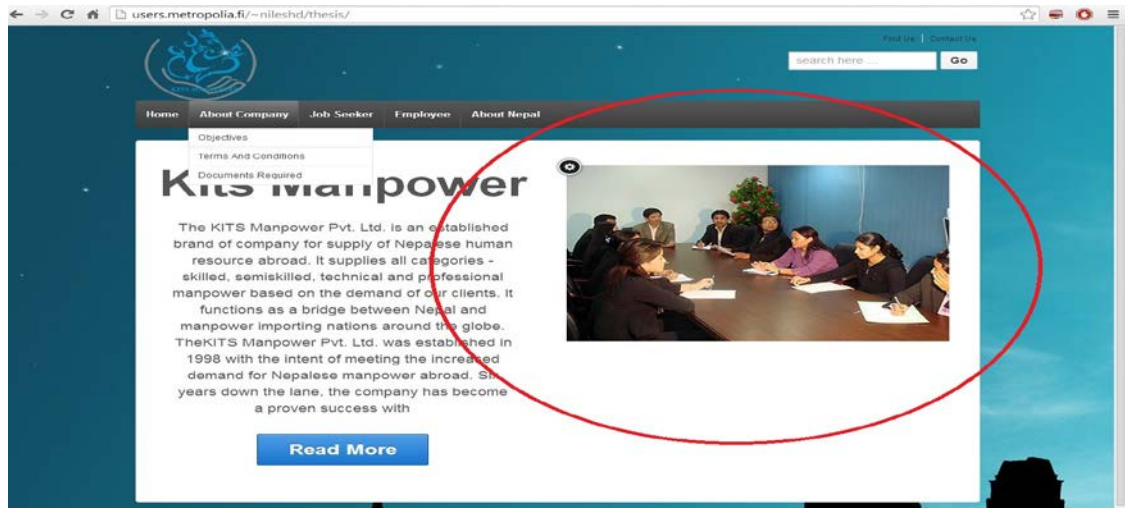


Fig 18: Easy Slider

I have used this plug-in on the homepage. I use this plug-in to show the images of the company. This is used to give the images of the company and show a brief visual about the things that happen in the company. Right now there are only a few images and you can scroll through them. To display the slideshow you have to insert the following shortcode in the page/post **[easingsliderlite]**

Responsive Add Ons

This plug-in is basically developed to separate the developing part from the designing part. This Plug-in makes sure that the theme's functionality is limited to design, layout and structure only and all the other areas should be left outside. This plug-in is basically developed for responsive theme but can be used in other themes as well.

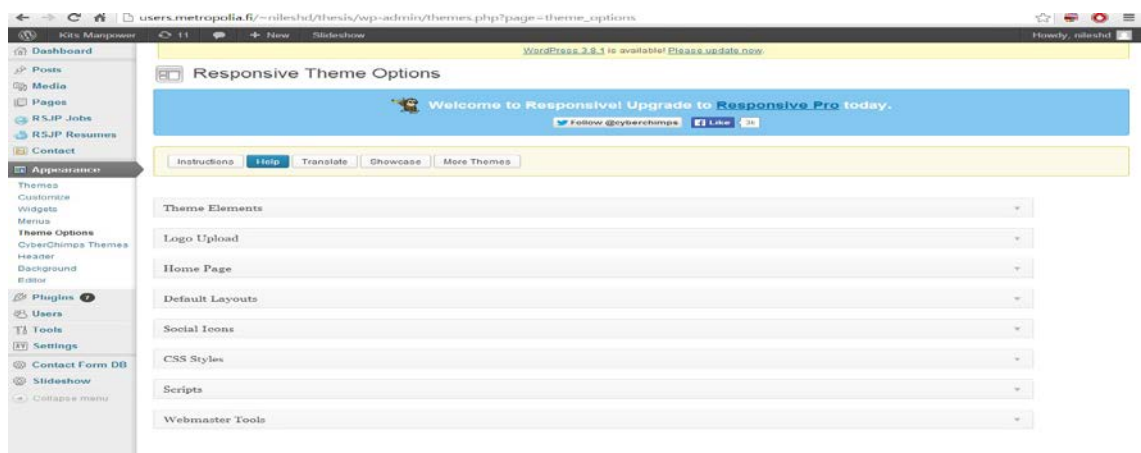


Fig 19: Responsive Add Ons

To install you have to download and unzip and move the file to your directory and just activate it. The figure shows the plug-in after it is installed.

Resume Submissions & Job Postings

This plug-in basically for posting jobs in the website .The plug-in helps the user to post job listings and handle resume submissions. It provides you with a simple way of creating job postings and a resume submission form. Admin can post jobs in the website page and once the users finds an appropriate open job they can look in the post and apply. They can send their detailed information and resume. The user can also leave the resume for general purposes.

Thus submitted resumes can be checked by admin and kept for further process. Admin gets email notifications also about the job application.

Some of the features of this plug-in are that they are basically used for posting jobs. This plug-in allows user to attach files. Also the resumes submitted can be edited by admin and be exported to Pdf for further process.

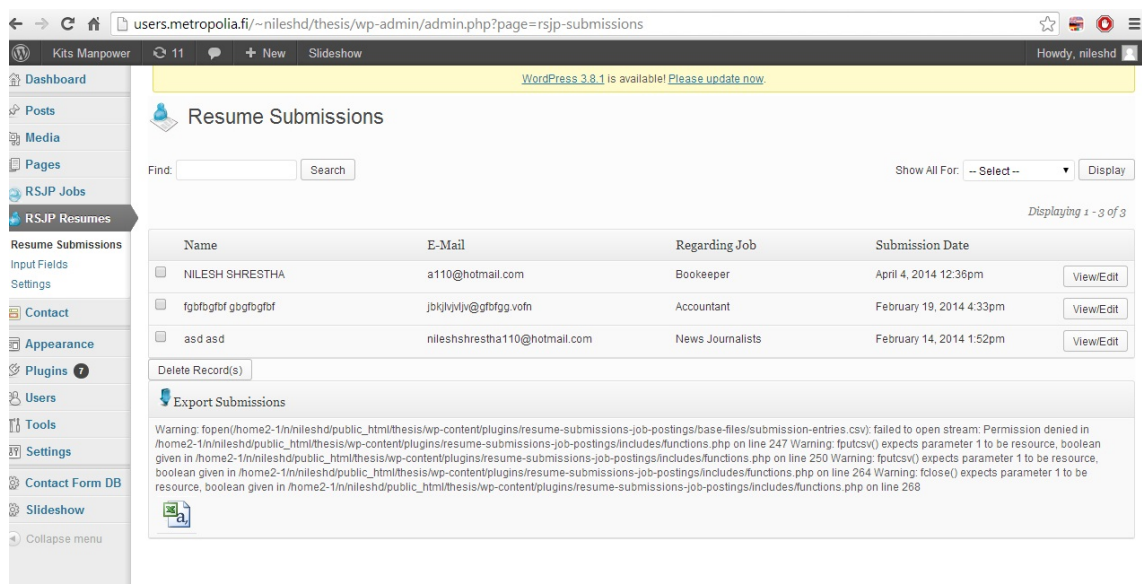


Fig 20: Submitted resume

To install the Plug-in following steps have to be followed.

- The downloaded plug-in should be unzipped and moved to the /wp-content/plugins/directory
- Once the directory is set you have to activate the plug-in through plug-in menu in dashboard.
- To use the plug-in you have to use suitable shortcodes like for job posting the shortcode used is [jobpostings]. For resume form to display shortcode is [resumeForm]. These shortcodes should be placed in suitable pages on the website.

SI CAPTCHA Anti-Spam

This plug-in is used for extra security. It is an anti spam method used in the Wordpress forms. With this plug-in users have to type in the code shown in the image in order to comment or submit a form. This prevents spam from automated bots and works well with Akismet.

In this plugin, the admin panel can configure all the necessary settings. This plugin is also valid in HTML. It allows trackback and pingbacks. It can be edited according to your own need with an abstract background with multi colored ,angled and transparent text. It works well with WordPress 2.9+, WPMU, and BuddyPress.

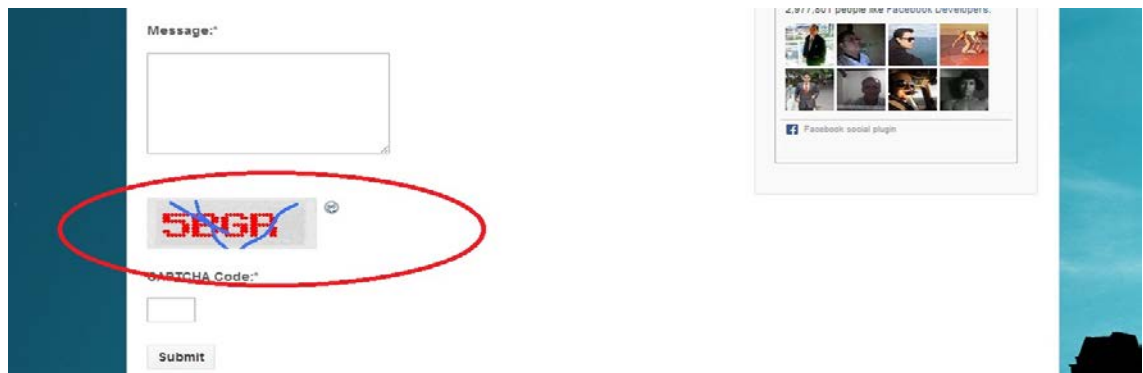


Fig 21: CAPTCHA Anti-Spam

The figure shows where the Anti-spam program is used on the website. It generates random combination of numbers and alphabets in every entry.

YouTube Subscribe widget

This plug-in is used to show a YouTube subscribe button in the sidebar. It allows users to subscribe the YouTube video and users can check the admin YouTube videos and subscribe there. Admin has to put his/her YouTube account username while setting. Admin can customize the size of the widget .and can change the height as well as weight according to his/her own need.

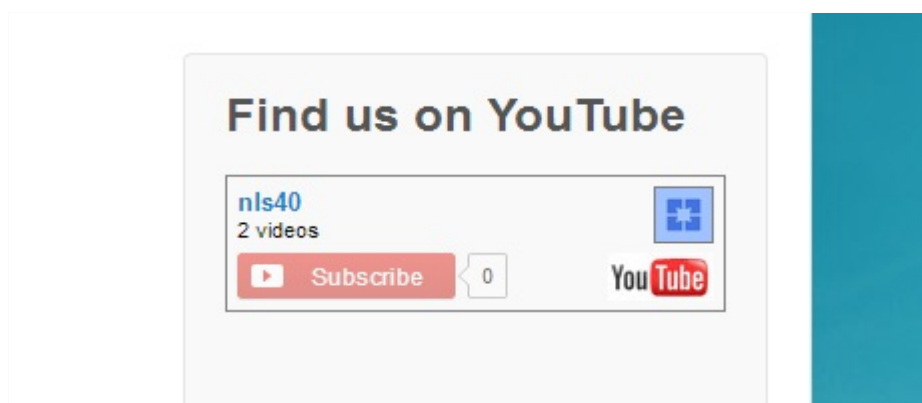


Fig 22: YouTube Subscribe widget

Following steps should be followed to use this plug-in

- Download the plug-in and unzipped it.
- Extract and upload into your root directory i.e. upload it in wp-content/plugins/ directory
- Activate the plug-in in the plug-in menu in dashboard.
- Then you can drag and drop the widget into your sidebar where you can edit the widget and enter the username you want as well as the title.

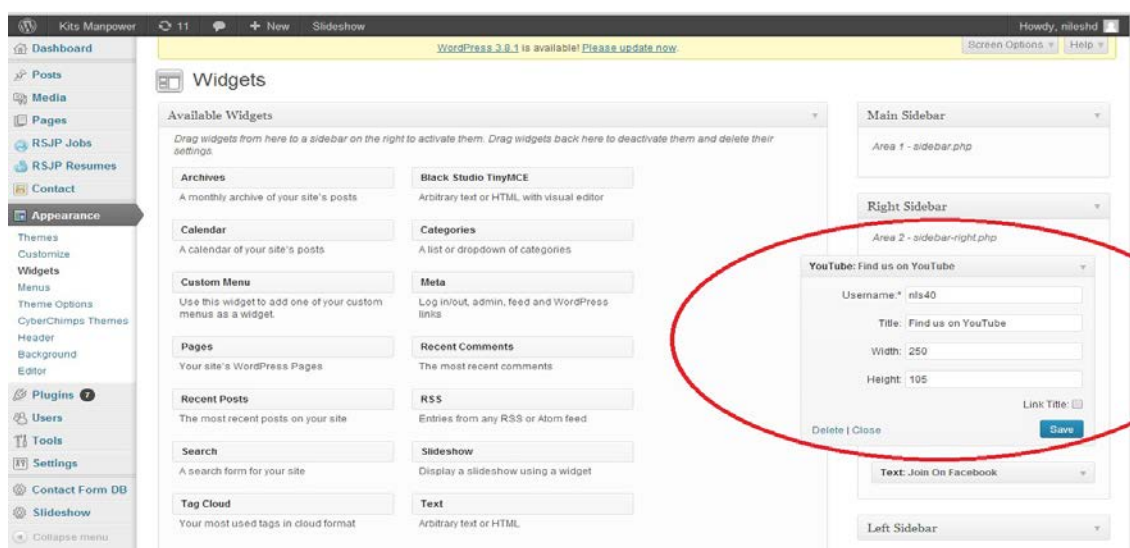


Fig 23: YouTube Subscribe widget

Once the plug-in is install you can check it in the widget section and use it .The figure above shows that.

5.4 Social media Optimization

Wordpress has a default search engine which is ready to use. It allows search in all the pages and posts and helps to gather information throughout the site. Google suggest a responsive design to encourage a better online experience and I have also used a responsive design for the website.

To make your website search engine friendly, Wordpress has some tips for that.

- Good Clean code

The code should be valid so you have to check the code for errors that it will help the search engine for smooth flow in your website. For this you do not have to change the codes or edit it.

- Priority to the content

A search engine just reads your site so it does not have to be pretty but it should be readable. I have used basic content, a short description about the company. All of the pages have some information about the company and they are readable as well.

- Attractive permalinks

By default Wordpress uses web URLs which are not readable and have a lot of question marks and numbers. You can change the links to be more readable by going to dashboard and set the permalinks .You can choose there what type of link you want to show.

- Using social media

Google uses social media to reach to the website so using social media to promote your website helps to find your website easily. Search engines are favour websites which are linked with a popular website and nowadays social media is the best way to promote your site.

Cross-browser testing

Nowadays there are lots of browsers and different operating system use different browsers. To increase the visitors one has to test the site in all or at least in a few popular browsers. Cross browser means the ability of the website to cope with the environment. The function of the website should work properly regarding to the browser used. Most of the browsers used today are Google chrome, Mozilla Firefox, Internet explorer as etc.

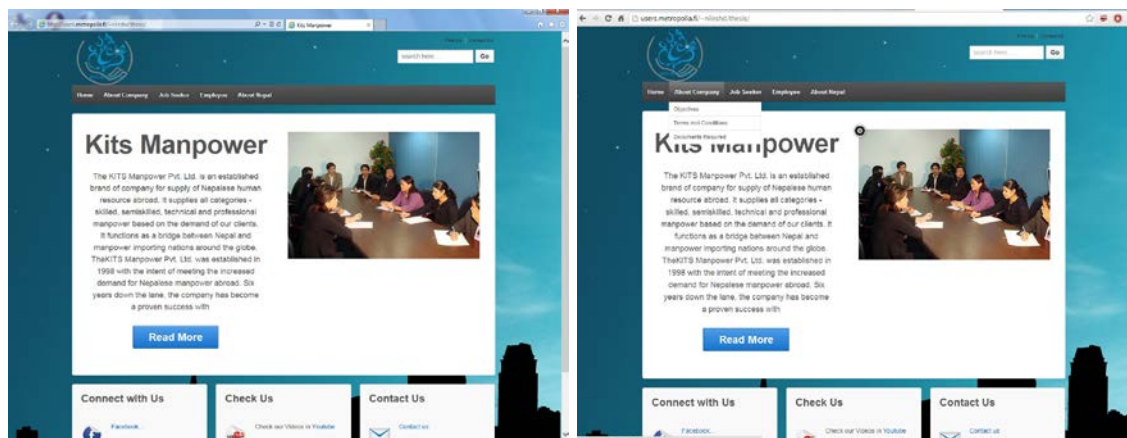


Fig 24: testing in internet explorer and Google chrome

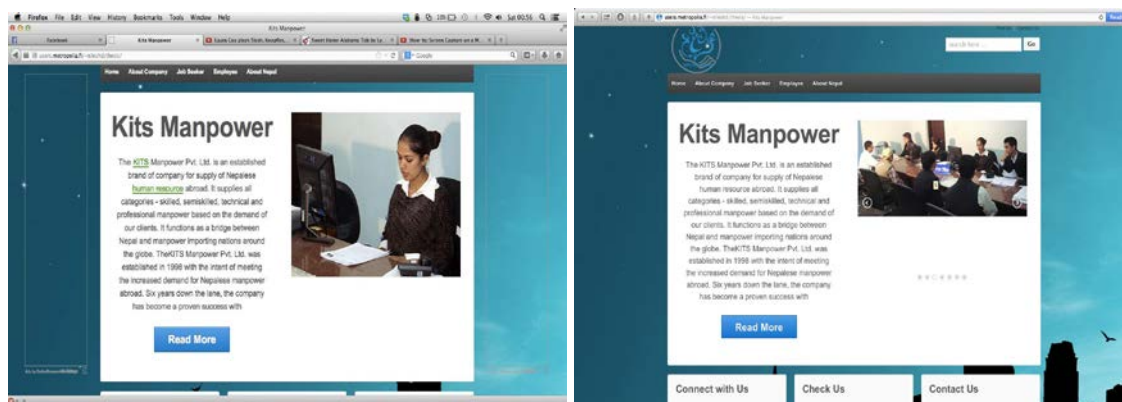


Fig 25: Testing in Mozilla Firefox and safari

Some of the testing I have done in different browsers is shown above. The site was tested in four different browsers .The tested result was ok in all four browsers.

5.5 Features

This section discusses some key features of this system.

EASE OF USE

The website design is simple and easy to use. It is designed to be user friendly so that users will not get confused or experience any problem while using it. Users with less experience with computers can browse through the website with ease. People should know from the title of the page that what the page is for. Is users are confused when filing the application forms there is an indication to show what is missing from the form. All the forms are validated so that the company can get the required information.

Appearance

User should be willing to use the website so it should look good .Users get attracted to the look and feel of the website so, sites should be simple and easy to use. The design of the website should not only contain text but should also include images as well as videos and other media tools. The colour combination, right use of graphics, images and other media tools should be used properly within the pages. The navigation should also be simple to use. User with less knowledge about the computer should be able to use the website easily.

Contact Information

Contact information should be there on the website in case users have a problem. Users can also ask questions or other information regarding the company through contact

information. So to easily reach the company contact information should be on the website.

Search Option

Search function is essential so that the users do not have to waste time on looking for some particular thing within the website. With the search option users can just type what they are looking for in the search box and get the result in a few seconds. This way the users will be happy as they can find whatever they are looking for quickly and easily and also the page will not get over crowded.

Browser compatibility

The website is designed and tested for different browsers as well as devices. It works fine with the popular browsers like Google chrome, Mozilla fire fox, Internet Explorer etc as well as small devices like smart phone and tablets.

6 Discussion

CMS has become the easy and convenient tool for developing web based applications. For this thesis a free CMS tool called Wordpress was. Its tools are easy to use and people with less computer knowledge can create a website and can manage it easily.

Using these kinds of tools you can create web application and you can use lots of extensions to make your application more appealing to the users. Wordpress has themes, plug-in, widgets to make it better and easier to use.

It was quite easy to develop a website using Wordpress but I faced a few problems during the project. This was the first time I used any CMS. I had to get familiarized with its environment and to learn how to install it in my computer. I also had to learn how to develop a website from scratch and look for lots of application and plug-in which can be used for the website. The theme for the website is responsive as well. I chose that theme as people nowadays use different devices to browse, such as smart phones, tablets and laptops. All these devices have different screen size and therefore responsive theme was used to solve this problem. The website now acts according to the device size and displays according to the display option.

I have gathered lots of experience from this project. This project has helped me to develop my skills and get familiarized with a new CMS tool. It is also good to see the website working on different environments, devices and browsers.

I got help from the teacher who teaches CMS in school. I also got help from my friends who are more familiar with this tool. Finally, I learned that by using CMS you can also develop a well manageable website which can be developed more easily than hard code coding as well as managed easily. Sometimes Hard Coding is needed but once you know how to search for a particular plug-in, you can get anything you want by using it.

7 Conclusion

The goal of this thesis was to design and develop a website for Kits Manpower Company. Another aim was to design the website including the company's new logo. For designing the logo I used Adobe Photoshop and company name. For all other designing and developing I choose Wordpress. Wordpress is open source software and free to use. It is one the most popular CMS tool easy to use. The goal of this project was to develop a well navigated simple layout which is done using Wordpress. The project started in November 2013 and finish April 2014.

The website has several pages which gives the information about the company and brief description about the country. It uses plug-in for the job application and contacts the job seekers through email and the application can be saved for later use. It has also several social networking links as Facebook, YouTube and LinkedIn. Users can check the company Facebook page and subscribe YouTube videos. LinkedIn is used to apply for the job application. Using LinkedIn button the user can directly apply for the job using his or her LinkedIn profile without having to fill up the form.

The web application uses HTML and CSS. I used Wordpress for the first time and learned lots of new things. Wordpress can make work lot easier than hard code coding. You can find a lot of readymade plug-ins which helps you to develop the site easily and quickly. This in turn helps you to save time and money when developing a working site. Now that I have become more familiar with Wordpress, I can use my knowledge to develop other web applications as well.

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